



## CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
<b>ELECTRICIAN III</b>	<b>33</b>	<b>G</b>	<b>9.448</b>
<b>ELECTRICIAN II</b>	<b>32</b>	<b>G</b>	<b>9.447</b>
<b>ELECTRICIAN I</b>	<b>31</b>	<b>G</b>	<b>9.426</b>

## SERIES CONCEPT

Electricians perform skilled electrical work to maintain and repair electrical systems and equipment.

Respond to repair orders; establish priority of repairs; diagnose problems utilizing appropriate tools and test equipment; estimate cost of jobs; acquire materials to complete jobs by contacting vendors and/or completing purchase requisitions; make repairs; document time and material costs for billing purposes.

Implement a preventive maintenance schedule and perform preventive maintenance such as conducting routine inspections, cleaning and servicing, and making adjustments and minor repairs to prevent malfunction and prolong the life of equipment, systems and structures.

Troubleshoot, diagnose, maintain and repair circuit breakers and transformers; emergency generators; high voltage primary power lines; heating, ventilation, and air conditioning systems; fire alarm system; electric motors, and lighting maintenance.

Install or remove and reinstall wiring, computer cables, power panels, circuit breakers, lighting, switches and receptacles in accordance with code requirements; study blueprints and schematics, calculate electrical load; design new circuits based on the load; gain access to components and systems; perform installation; update blueprints; inspect electrical systems of structures for conformance with specifications and code requirements.

Provide training, work direction and work review to other maintenance staff such as Maintenance Repair Workers, students and others as assigned.

Assist contractors by providing information regarding the existing structure, equipment, systems and required modification; review bids and work completed by contractors for quality and conformance with specifications and codes as assigned.

Perform related duties as assigned.

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## CLASS CONCEPTS

**Electrician III:** Under general supervision, incumbents direct and supervise a crew of Electricians and other maintenance staff and perform complex skilled electrical repair and maintenance work.

Schedule and oversee repair and maintenance work; review work requests and/or structures, equipment and systems; determine complexity of work and establish job priority; write work order; coordinate job completion with other trade workers; assign work to agency personnel or make arrangements for outside vendors to complete; lay out major projects; inspect work to ensure timely completion and compliance with specifications and code requirements.



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## CLASS CONCEPTS (cont'd)

### Electrician III (cont'd)

Hire, train and provide technical assistance to staff; assign and review work; initiate disciplinary action; evaluate performance and ensure personnel comply with federal and State laws and regulations and agency policies and procedures.

**Electrician II:** Under general supervision, incumbents perform the full range of duties described in the series concept, and in addition, at the advanced journey level, either:

- 1) function as a leadworker for lower level Electricians on a regular basis by providing training and technical assistance, assigning and reviewing work, and providing input to performance evaluations; or
- 2) in a correctional environment, function as a leadworker for an inmate crew on a regular basis and document inmate performance through completion of periodic performance reports. Incumbents are also responsible for implementing security procedures which include securing the work area from unauthorized inmates and accountability for assigned inmates, staff, tools, and equipment.

**Electrician I:** Under general supervision, incumbents perform the full range of duties described in the series concept. This is the journey level in the series.

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## MINIMUM QUALIFICATIONS

### SPECIAL NOTES AND REQUIREMENTS:

- \* Some positions may require a valid driver's license and will be identified at the time of recruitment.

### ELECTRICIAN III

**EDUCATION AND EXPERIENCE:** Completion of a recognized electrician apprenticeship program followed by two years of journey level electrician experience; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

**ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES** (required at time of application):

**General knowledge of:** basic principles and practices of overseeing the work of others. **Ability to:** set priorities based on agency needs and the capacity of the shop; plan and organize work on electrical projects; examine structures, systems, equipment and fixtures and determine modifications or repairs needed; determine cost, feasibility, and design of projects; schedule projects by coordinating with other trade workers, agency staff, and outside vendors; estimate material, supply and equipment requirements for shop operations and major projects; *and all knowledge, skills and abilities required at the lower levels.*

**FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES** (typically acquired on the job):

**Working knowledge of:** State and agency policies and procedures pertaining to purchasing, personnel, and work unit operations; State and local building and fire codes relevant to electrical work and construction. **Ability to:** explain and interpret policies and procedures related to maintaining and repairing electrical systems; supervise staff including hiring, training, assigning and reviewing work, establishing work schedules and priorities, administering discipline and evaluating performance.

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## MINIMUM QUALIFICATIONS (cont'd)

### ELECTRICIAN II

**EDUCATION AND EXPERIENCE:** Completion of a recognized electrician apprenticeship program followed by one year of journey level electrician experience; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

**ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES** (required at time of application):

**Ability to:** set priorities of job assignments; prepare documentation related to work performed; coordinate the work of others assigned to a large project. **Skill in:** troubleshooting and repairing electro/mechanical and electro/magnetic locks and gates; *and all knowledge, skills and abilities required at the lower level.*

**FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES** (typically acquired on the job):

**Working knowledge of:** State and agency policies and procedures pertaining to work unit operations, personnel, and purchasing; State and local building and fire codes relevant to electrical work and construction. **Ability to:** provide technical guidance to staff including training, assigning and reviewing work, and evaluating performance; establish and maintain records and files and prepare reports pertaining to operations, materials and supplies.

### ELECTRICIAN I

**EDUCATION AND EXPERIENCE:** Completion of a recognized electrician apprenticeship program; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

**ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES** (required at time of application):

**Working knowledge of:** electrical theories and electronics standard practices, methods, materials, tools, and equipment used in electrical work; safety hazards and safe working procedures. **Ability to:** prepare written work orders, requisition supplies, and prepare specifications; read and interpret equipment manuals, electrical codes, blueprints and schematic diagrams to determine type, location and configuration of electrical systems; troubleshoot complex systems without adequate drawings and documentation; plan projects, develop sketches and lay out materials; annotate blueprints with updated electrical configurations; originate schematic drawings of modified circuits; estimate materials and time required to complete projects; apply knowledge of mathematics sufficient to calculate electrical loads, conduit size, and correct wire size for projects; work on ladders and scaffolding and in confined building access areas. **Skill in:** safely using and maintaining tools and equipment used in electrical work and interpreting readings from test equipment; performing a variety of skilled journey level electrical processes including diagnosing and correcting defects in electrical systems and equipment; wiring commercial and residential buildings; installation and repair of equipment; wiring of specialized systems such as sound, telephone, fire alarms, and programmable controllers.

**FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES** (typically acquired on the job):

**General knowledge of:** State and local building codes and the National Electrical Code; agency policies and procedures pertaining to work unit operations; and electric code **Skill in:** using high voltage test equipment and performing high voltage splicing and termination.

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This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

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